

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently Amended) A method for ~~synthesizing~~
synthesizing a templated molecule, comprising the steps of:
 - a) providing at least one template comprising ~~of one~~
or more codons,
 - b) providing a first functional entity attached to a
zipping domain, said zipper domain ~~comprises~~
comprising a first part of a molecule pair, said
first part being capable of reversible interaction
with a second part of the molecule pair,
 - c) providing one or more building blocks, each
comprising an anti-codon, a further functional
entity and a linker connecting the anti-codon and
the functional entity, wherein the anti-codon
complements a codon of a template, and the
functional entity is connected to a zipper domain
comprising the second part of said molecule pair
and is capable of being chemically connected to
the first functional entity,

- d) contacting the components of step a), b), and c) with each other under conditions allowing specific ~~hybridisation~~ hybridization of the anti-codon(s) to the codon(s) of the template(s) and dimerization of the two parts of the molecule pair,
- e) allowing the functional entity of the building block to form a chemical connection to the first functional entity,
- f) optionally, cleaving one or more linkers, provided that at least one linker remains to connect the functional entities with the template,
- g) obtaining a templated molecule attached to the template which directed the synthesis thereof.

2. (Currently Amended) The method according to claim 1, wherein steps d) through f) ~~is~~ are repeated one or more times.

3. (Original) The method according to claim 2, wherein the repetition is conducted using the templated molecule attached to the template which directed the synthesis thereof according to step g) as the first functional entity attached to a zipping domain in the contacting step according to step d).

4. (Currently Amended) The method according to claim ~~1 to 3~~, wherein the first functional entity is covalently connected to the template.

5. (Currently Amended) The method according to claims ~~1 to 3~~, wherein the first functional entity is connected by ~~hybridisation~~ hybridization to the template.

6. (Currently Amended) The method according to claim ~~1, 2, 3, or 5~~ wherein the first functional entity is part of a building block.

7. (Currently Amended) The method according to claim 6, wherein the zipper domain polarity of the building block ~~harbouring~~ harboring the first functional entity is reverse compared to the zipper domain polarity of the building block ~~harbouring~~ harboring the further functional entity.

8. (Currently Amended) The method according to ~~any of the preceding claims~~ claim 1, wherein the zipping domain of the first functional entity is present in the template.

9. (Currently Amended) The method according to ~~any of the preceding claims~~ claim 1, wherein the molecule pair comprises

two complementary sequences of nucleic acids or nucleic acid analogs.

10. (Currently Amended) The method according to ~~claims 1 to 9~~ claim 1, wherein the first functional entity is connected to a sequence of nucleic acids complementing a sequence of nucleic acids ~~harboured~~ harbored by the template.

11. (Currently Amended) The method according to ~~any of the preceding claims~~ claim 1, wherein the zipping domain is a part of the linker of the building block.

12. (Currently Amended) (Currently Amended) The method according to ~~claims 8 or 11~~ claim 8, wherein the zipping domain is proximal to the functional entity.

13. (Currently Amended) The method according to ~~claims 11 or 12~~ claim 11, wherein the zipping domain is ~~space~~ separated from the functional entity ~~with~~ by no more than 2 nucleic acids monomers.

14. (Original) The method according to claim 13, wherein the zipping domain and the first functional entity ~~is~~ space ~~are separated~~ by no more than 2 nucleic acid monomers.

15. (Currently Amended) The method according to ~~any of the preceding claims~~ claim 1, wherein the zipping domain of the further functional entity of the building block and the first functional entity ~~is~~ are distanced from the respective functional entities ~~with~~ by the same number of nucleic acid monomers.

16. (Currently Amended) The method according to ~~any of the preceding claims~~ claim 1, wherein the zipping domain sequence ~~comprises~~ is 3 to 20 nucleic acid monomers.

17. (Currently Amended) The method according to claim 16, wherein the zipping domain sequence ~~comprises~~ is 4 to 16 nucleic acid monomers.

18. (Currently Amended) The method according to claim 17, wherein the zipping domain sequence ~~comprises~~ is 5 to 10 nucleic acid monomers.

19. (Currently Amended) The method according to ~~any of the preceding claims~~ claim 1, wherein the linker between the anti-codon and the zipping domain is a single bond.

20. (Currently Amended) The method according to ~~any of the preceding claims~~ claim 1, wherein the annealing

temperature of the codon:anti-codon is higher than the annealing temperature of the zipping domain hybrid.

21. (Original) The method according to claim 20, wherein the difference between the annealing temperatures is 10°C or above.

22. (Original) The method according to claim 20, wherein the difference between the annealing temperatures is 25°C or above.

23. (Currently Amended) The method according to ~~any~~ ~~of the preceding claims~~ claim 1, wherein the conditions for allowing specific ~~hybridisation~~ hybridization of the anti-codon(s) to the codon(s) of the template(s) are distinct from the conditions allowing for optimal dimerisation of the two pairs of the molecule pair.

24. (Currently Amended) The method according to claim 23, wherein the conditions during specific ~~hybridisation~~ hybridization of the anti-codon(s) to the codon(s) include a concentration of codons and/or anti-codons, which is higher than the concentration of codons and/or anti-codons used during dimerisation of the two pairs of the molecule pair.

25. (Currently Amended) The method according to claim 24, wherein the concentration during ~~hybridisation~~ hybridization of codon(s) and anti-codons is at least 10 times higher compared to the concentration used for dimerisation of the two pairs of the zipping domain.

26. (Currently Amended) The method according to ~~any of the preceding claims~~ claim 1, wherein the contacting according to step d) is performed by alternating the temperature below and above the annealing temperature of the zipping domain.

27. (Original) The method according to claim 26, wherein the alternating is performed a plurality of times.

28. (Currently Amended) The method according to claim 26 ~~or 27~~, wherein the highest temperature is below the annealing temperature of the codon:anti-codon hybrid.

29. (Currently Amended) A templated molecule obtainable according to ~~any of the claim 1 to 28~~ claim 1.